



Querencia at UNM

THE PROVOST'S PERSPECTIVE FROM THE HEART OF UNM

Insights at the intersection

Ask students and faculty what they study or teach at The University of New Mexico, and they may answer with the name of a discipline, such as physics, history, accounting or art history. Those identities matter. Departments and programs provide students, faculty, and staff a community where deep knowledge is developed, better questions are posed, and learning occurs from one another.



Eric Manicke, an undergraduate in the Ellis School of Business Leadership, spans disciplines with his pottery that he makes and sells. He is minoring in the College of Fine Arts, with a concentration in Arita porcelain.

Although each department or program is housed within a particular school or college, every day at UNM, I see faculty, students, and staff working across schools and colleges to address the challenging questions and problems we face. I see across UNM a strong commitment to bringing people from different disciplines together to address complex challenges.

At UNM, we support interdisciplinary collaborative work through initiatives like UNM's Grand Challenges, which are based on teams from across specialties that are poised to develop new answers to complex questions like basic needs, trustworthiness of AI, and early childhood health. Some of this work will be showcased during **Grand Challenges Day on Oct. 2.**

And if you attended last week's Faculty Lightning Lounge, a monthly event that features brief presentations from researchers in a variety of disciplines, you would have learned about UNM research involving slow-moving planets, textiles, "robot dogs" equipped with virtual reality, and an exploration of how we evaluate fact vs. fiction in what we read — from ancient texts to the age of AI.

This month in *Querencia at UNM*, we feature a few of the faculty and students who are tackling big questions by crossing departmental boundaries. Professors Meeko Oishi and Stephanie Moore are teaming up to explore the trustworthiness of AI. And biology undergraduate Willow Cunningham and Tomasz Falkowski, faculty in the Honors College, are creating a deeper understanding of ecology practices while considering culture and community-based knowledge.

Interdisciplinary research can deepen how we teach and learn, open new directions for research and creative works, and strengthen our partnerships with communities. I hope the stories in this issue inspire you to make a connection across disciplines and consider what we might accomplish together for New Mexico. The possibilities are endless.

With much appreciation,

Barbara Rodríguez

Provost and Executive Vice President for Academic Affairs

Faculty in Focus



Meeko Oishi

Electrical and Computer Engineering



Stephanie Moore

Organization, Information and Learning Sciences

Asking the question, “Can AI be trusted?” may seem like a straightforward question. But the answer varies depending on which perspective you use to evaluate trust. When it comes to trustworthy AI, Meeko Oishi and Stephanie Moore are combining their knowledge to create new insights.

Oishi, a professor in the Department of Electrical and Computer Engineering, specializes in the field of autonomous systems, and Moore, an associate professor in the Department of Organization, Information and Learning Sciences (OILS), focuses her research at the intersection of ethics, design, and technology.

While Oishi’s research focuses on creating and quantifying the effectiveness of autonomous cyber-

physical systems, despite uncertainty in the environment and in human interaction with the autonomous system, Moore’s work takes a broader perspective, asking questions like “Where is the human in this?”

Though their fields seem worlds apart, they are collaborators on several projects that are examining questions surrounding AI and trust.

They are both part of the Responsive and Resilient AI for Autonomous Systems (RAISE) project, the UNM Grand Challenges Trustworthy AI team, and also co-teach a graduate-level course titled “Ethics of AI in Autonomous Systems,” which is cross-listed in OILS and the School of Engineering. The two-semester course focuses on engineering-based aspects of autonomous AI in the fall, then in the spring, applies that knowledge from an ethical framework lens with projects with partners, such as the national laboratories and the Air Force Research Laboratory.

“This has been a true co-teaching experience, starting with the design of the course to the sharing of the teaching,” Oishi said.

Both admit that as professors in their respective fields, they do not have all the answers, so that is why they are passionate about inviting students into the conversation. When Oishi was building her team for the RAISE, she was looking to add a member who could examine ethical issues in autonomous systems. Through Vanessa Svihla, professor in OILS and Presidential Teaching Fellow, Oishi first became familiar with Moore’s work. They both felt an instant professional connection.

Though they come from very different disciplines, they have found that their collaboration is beneficial in ways they never expected. “We have so many challenging problems, and that requires broader ways of thinking,” Oishi said.

She said that for engineers, graduate school especially has a narrow focus and many in the field may not consider perspectives other than the quantifiable. “We need more people to think about these things.”

If getting students to think about new ways of approaching challenges is their goal, they are succeeding. Oishi said that one of the highest forms of feedback they had received from their co-teaching of the AI class came from a student who shared, “Having taken the class changed the way I think about engineering.”



Planting trees in a community is a commonplace activity and seems fairly straightforward. Select an appropriate tree; make sure there is optimal space, soil and drainage; plant it, and with a little care (including sunshine and water), watch it flourish for years to come. There is a science in how to plant, what living things need to survive and thrive, and what is detrimental to their wellbeing.

But planting a tree is not just a scientific decision. It is also a cultural one, if you consider a tree not just as a living organism but a vital ingredient in building and maintaining community.

It is at that intersection of science and culture where Tomasz Falkowski and Willow Cunningham have found a unique collaboration.

Falkowski, an applied ecologist, is in his third year as an assistant professor in the Honors College. He specializes in taking an interdisciplinary lens to study socioecological systems, examining the relationships between ecological and human communities, and how they can be restored.

Cunningham, a senior in biology, approaches their plan of study and research informed by various perspectives. It is shaped by their cultural and racial background that Cunningham calls Nuevo Mexicane — a racial mix of indigenous, Mexican, and Spanish — while considering issues like socioeconomic and food sovereignty. “I’m in two different realms.”

The project they are collaborating on is a project that dates back to 2013 that involves restoring the tropical forest in Chiapas, Mexico, after land-use change. Reforestation is framed in the lens of not just planting trees, but on keeping with traditional Maya agroforestry practices, as well as keeping socioeconomic and cultural impact of restoration efforts in the forefront.

Cunningham first learned about Falkowski’s research in a course their first semester at UNM called “Legacy of Wilderness.” “We’ve been working together ever since,” Cunningham said.

Cunningham will graduate with a bachelor's degree in December, then will pursue a Ph.D. in biology with a specialization in ethnobiology.

Cunningham describes their work as based in science but steeped in rich, community-based knowledge and insights. "Numbers wouldn't mean anything without the larger context of how they are impacting communities," they said. "This research is part of an inclusive process where the community shapes the questions."

Falkowski has learned from the collaboration as well. "Willow has pushed me on how to incorporate community-engaged research."

Trained as a bioengineer, Falkowski admits he takes comfort in that which can be scientifically measured or proven.

"I like numbers because they are precise, but that precision is illusory," he said. "They need to be placed in the context of qualitative data because we are not purely rational beings."

He said the idea of STEAM (Science, Technology, Engineering, Arts and Mathematics) allows us to "recognize how both operate in complementary and synergistic ways to augment our understanding of the world."

"I like to think of science as a form of storytelling," Falkowski said. "What is the narrative? What is the story?"

For Cunningham, who is also studying in a scientific field, community-engaged research has also pushed them into some broader areas that can introduce discomfort, but are necessary for the kind of impact they hope to achieve in their work. "Interdisciplinary research is about bettering the world around me."

Ultimately, Falkowski said, "It gets messy, but that's where the good stuff is."



UNM has launched a short survey designed to capture opinions on what's working, what could be better, and what you dream of for UNM's future. The answers will inform President Goldstein as the University plans for the years ahead. The survey was sent via email on Monday and is also available [here](#).

The deadline for feedback surveys on AI for faculty and students has been extended to Oct. 11. Find the surveys, and an opportunity to submit feedback on the draft Statement of Values, Ethics and Principles on AI, at the [AI at UNM website](#).

The University of New Mexico and the UNM Foundation have launched Accelerate New Mexico, a historic \$1.2 billion comprehensive fundraising campaign to expand student opportunity, advance research and innovation, strengthen faculty excellence and invest in New Mexico's future. The largest philanthropic campaign in UNM history, the campaign will expand scholarships and educational access, recruit and retain exceptional faculty, accelerate groundbreaking research and discovery, improve patient care, strengthen New Mexico's workforce and create new opportunities for students and communities throughout the state. [Learn more about Accelerate New Mexico and how to support the campaign at the campaign website.](#)



The 2026 UNM Gives campaign to benefit the United Way of North Central New Mexico is Oct. 1-Nov. 30. This year's events feature Change for Change throughout October, the Lobo Bake Sale, and the President's Fall Fiesta, a new event that will feature student organizations and departments. Learn more on how to give and get involved on the [UNM Gives website](#).

The University of New Mexico is now accepting nominations for 2027 Honorary Degree recipients that will be awarded as part of the spring 2027 Commencement. The nominations should be sent to the Office of the University Secretary, Scholes Hall, Room 103 or univsec@unm.edu, no later than 5 p.m. Oct. 16. See the [University Secretary's website](#) for additional information.

Querencia at UNM is a monthly publication of the Office of Academic Affairs. Ideas for future content? Email us at querencia1@unm.edu. Find previous issues at provost.unm.edu.